

Amendments of the Claims:

A detailed listing of all claims in the application is presented below. This listing of claims will replace all prior versions, and listings, of claims in the application. All claims being currently amended are submitted with markings to indicate the changes that have been made relative to immediate prior version of the claims. The changes in any amended claim are being shown by strikethrough (for deleted matter) or underlined (for added matter).

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (New): An analysis system of matter adhered to an inside wall of a vessel comprising:

a guiding apparatus including

a main body portion,

a flexible insert portion extending from said main body portion and
being able to be inserted into said vessel and having a window
formed in a distal end thereof, and

a channel extending through said main body portion and insert portion
and reaching said window; and

a Raman analysis apparatus including

a light source emitting an excitation light,

a spectroscope spectrally analyzing said matter adhered to the inside wall of said vessel,

a flexible insert cable to be inserted into said channel and whose distal end is faced with said window,

an excitation optical fiber being received in said insert cable and whose basal end is connected to said light source for transmitting said excitation light and whose distal end is arranged at a central area of the distal end portion of said insert cable,

a plural number of light receiving optical fibers being received in said insert cable and whose basal end are connected to said spectroscope and whose distal end are arranged in such a manner as to surround said excitation optical fiber at the distal end portion of said insert cable,

a transparent excitation small piece having a film-like excitation optical filter adhered to a surface thereof and the surface being abutted against a distal end of said excitation optical fiber, said film-like excitation optical filter cutting all light only excepting a light having a predetermined wavelength, and

a transparent light receiving plate having a film-like light receiving optical filter adhered to a surface thereof and the surface being abutted against distal ends of said plural number of light receiving optical fibers, said film-like light receiving optical filter cutting only a light having said predetermined wavelength,

wherein said excitation light along said excitation optical fiber is projected through said window and Raman scattered by impinging on said matter adhered to the inside wall of said vessel, said scattered light is made incident to said window, and said incident light is transmitted along said light receiving optical fibers to said spectroscope for analyzing, and

wherein said transparent light receiving plate has a center hole and said transparent excitation small piece is fitted into said center hole.

10. (New): An analysis system of matter adhered to an inside wall of a vessel according to claim 9, wherein another excitation optical filter for cutting all light only excepting a light having said predetermined wavelength is disposed between said light source and said excitation optical fiber.
11. (New): An analysis system of matter adhered to an inside wall of a vessel according to claim 9, wherein said guiding apparatus is an endoscope through which an interior of said vessel can be observed.
12. (New): An analysis system of matter adhered to an inside wall of a vessel comprising:

a guiding apparatus including

a main body portion,

a flexible insert portion extending from said main body portion and being able to be inserted into said vessel and having a window formed in a distal end thereof, and

a channel extending through said main body portion and insert portion and reaching said window; and

a Raman analysis apparatus including

a light source emitting an excitation light,

a spectroscope spectrally analyzing said matter adhered to the inside wall of said vessel,

a flexible insert cable to be inserted into said channel and whose distal end is faced with said window,

an excitation optical fiber being received in said insert cable and whose basal end is connected to said light source for transmitting said excitation light, and

a plural number of light receiving optical fibers being received in said insert cable and whose basal end are connected to said spectroscope and whose distal end are bundled at the distal end of said insert cable,

wherein a distal end of said excitation optical fiber is arranged at an outer side in a radial direction of said bundle of light receiving optical fibers at the distal end portion of said insert cable, and

wherein a distal end face of said excitation optical fiber is slanted with respect to an axis of said excitation optical fiber so that an optical axis of said excitation light along said excitation optical fiber is deflected in a direction intersecting a center axis of said bundle of light receiving optical fibers which is orthogonal to a distal end face of said bundle of light receiving optical fibers, said deflected excitation light is projected through said window and Raman scattered by impinging on said matter adhered to the inside wall of said vessel, said scattered light is made incident to said window, and said incident light is transmitted along said bundle of light receiving optical fibers to said spectroscope for analyzing.

13. (New): An analysis system of matter adhered to an inside wall of a vessel according to claim 12, wherein a film-like excitation optical filter for cutting all light only excepting a light having a predetermined wavelength is adhered to said slant distal end face of said

excitation optical fiber, and a film-like light receiving optical filter for cutting only a light having said predetermined wavelength is adhered to said distal end face of said bundle of light receiving optical fibers.

14. (New): An analysis system of matter adhered to an inside wall of a vessel according to claim 13, wherein another excitation optical filter for cutting all light only excepting a light having said predetermined wavelength is disposed between said light source and said excitation optical fiber.
15. (New): An analysis system of matter adhered to an inside wall of a vessel according to claim 12, wherein said guiding apparatus is an endoscope through which an interior of said vessel can be observed.